

Amendments to the Drawings

Attached is replacement drawing sheet for amended Figure 2.

REMARKS

This amendment is submitted in Response to the outstanding Office Action dated February 3, 2009. The Office Action has been reviewed, and reconsideration of the application and allowance thereof are requested based on the following remarks.

The specification has been amended in order to include the appropriate headings. The abstract has also been amended in order to remove the term "comprise." Figure 2 has been amended to renumber reference number "14" as "12", to conform with the specification.

Applicant hereby cancels Claims 10 and 16, amends Claims 1, 3, 11, 12 and 15 solely for clarification purposes, and adds new Claims 17-24. New independent Claims 17 and 18 incorporate the subject matter of cancelled Claims 10 and 16, respectively. New Claims 19-22 depend from Claim 1, new Claim 23 depends from Claim 17, and new Claim 24 depends from Claim 18.

Claims 1-14 stand rejected under 35 USC §103 as being unpatentable over Ning, U.K. Patent No. 2 294 861 in view of Davenport, U.S. Patent No. 3 690 326 and Mentzel, U.S. Patent No. 5 423 336.

Claim 1 is directed to a tobacco smoke filter having a tar retention of at most 50% and comprising a relatively high draw resistance downstream filtering plug of at most 50% tar retention, a relatively low draw resistance upstream filtering plug of at most 22% tar retention spaced longitudinally upstream from the downstream filtering plug, and a filter wrapper engaging around and joining the spaced plugs to define a cavity therebetween, the draw resistance of the downstream filtering plug being greater than the draw resistance of the upstream filtering plug.

The filter defined in Claim 1 achieves improved performance over conventional filters because it gives satisfactory taste and the draw performance, while providing desirably low CO delivery (less than 5 mg per cigarette,

compared with 6 mg per cigarette of conventional filters) and low CO/tar delivery ratio (less than 0.7 compared with 1 for conventional filters).

Ning teaches a composite filter for a cigarette including a strand-side (upstream) filter 1, a mouth-side (downstream) filter 2, and a multi-aperture device (MAD) 3 between filters 1 and 2. As acknowledged by the Examiner, Ning does not disclose that one of the two filters is a relatively high draw resistance downstream filtering plug and the other filter is a relatively low draw resistance upstream filtering plug. Further, the Examiner acknowledges that Ning does not teach the tar retention values of Claim 1, and cites Davenport and Mentzel so as to allegedly cure these deficiencies.

Davenport teaches a tobacco smoke filter having an outer wrapper 9 and a rod 1 disposed therewithin. The rod 1 has spaced end portions 2, 2' and a center portion 3. The end portions 2, 2' and the center portion 3 are all made of the same cellulose acetate tow. Since the upstream and downstream end portions 2', 2 are of identical materials, Davenport does not teach that the upstream and downstream end portions 2', 2 have different draw resistances. Specifically, Davenport makes no mention of providing downstream end portion 2 with a greater draw resistance than the draw resistance of upstream end portion 2'. Further, while Davenport does teach examples of filters with tar retentions of up to 50% in the table in column 5, Davenport teaches that the whole filter achieves these percentages, and not that the end portions 2, 2' each have any particular percentage of tar retention.

There would be no motivation whatsoever to combine Davenport's filter with Ning's filter. As shown in Figure 1 of Ning, the two filters 1, 2 of Ning are separated by the multi-aperture device 3 and the pads 8, while Davenport, as shown in Figure 1, discloses a continuous filter defined by the rod 1. In this regard, the two end portions 2, 2' in Davenport are integral parts of the rod 1. Given the significant structural differences between the filters of Ning

and Davenport, combination of the two references would not have been obvious. Further, even if, for the sake of argument, one were to combine Ning and Davenport, the instant invention defined by Claim 1 would not result. Specifically, neither reference teaches a downstream filtering plug of at most 50% tar retention and having a greater draw resistance than an upstream filtering plug of at most 22% tar retention.

Mentzel disclose a filter having a first strand-side (upstream) chamber 2, a second or middle chamber 4 which contains adsorption agent 7, and a third mouth-side (downstream) chamber 6. The Examiner states that Mentzel teaches a filter with a draw resistance of less than 50mm W.G. and a tar retention of less than 30% at column 2, lines 33-35. It is respectfully submitted that the passage cited by the Examiner in Mentzel does not disclose the above draw resistance and tar retention values. Further, Mentzel does not appear to discuss any draw resistance or tar retention values. Accordingly, Mentzel does not include the teachings asserted by the Examiner.

Further, Mentzel discloses various embodiments which achieve a high pressure drop, which corresponds to a high draw resistance, at the upstream or strand-side chamber 2 of the filter. (see column 2, lines 5-11) This is contrary to Claim 1, which recites a relatively low draw resistance upstream filtering plug. In addition, Mentzel does not, as understood, teach that the draw resistance or pressure drop of the downstream mouth-side chamber 6 is greater than the draw resistance or pressure drop of the upstream strand-side chamber 2, as required in Claim 1. Furthermore, in at least one embodiment of Mentzel as shown in Figure 9, Mentzel teaches the exact opposite structure from that defined in Claim 1. Specifically, the upstream strand-side chamber 2 has a high pressure drop or high draw resistance, and the downstream mouth-side chamber 6 has a low pressure drop or low draw resistance.

Since Mentzel does not teach the numeric values required by Claim 1, does not teach that the draw resistance or pressure drop of the downstream mouth-side chamber 6 is greater than the draw resistance or pressure drop of the upstream strand-side chamber 2, and essentially teaches away from providing an upstream strand-side filtering plug having a low draw resistance or low pressure drop, no combination of the applied references will result in the invention as defined by Claim 1.

As such, Claim 1 is believed to be patentably distinguishable over Ning, Davenport and Mentzel, alone or in combination with one another.

New Claim 17, which incorporates the subject matter of cancelled Claim 10, is directed to a filter cigarette comprising a filter including the features of the filter recited in Claim 1. Therefore, Claim 17 is believed to be allowable over Ning, Davenport and Mentzel for the same reasons as presented above relative to Claim 1.

Claims 2-9 and new Claims 19-22, and Claims 11-14 and new Claims 23 and 24, respectively depend upon what are believed to be allowable Claims 1 and 17, and as such, are believed allowable therewith. These claims also include additional features which further distinguish over the applied references.

Claim 15 stands rejected under 35 USC §103(a), as being unpatentable over Ning '861 in view of Davenport '326, Mentzel '336 and Banerjee, U.S. Patent No. 5 839 449. Claim 15 depends upon what is believed to be an allowable Claim 17, and as such, is believed allowable therewith.

Claim 16 stands rejected under 35 USC §103, as being unpatentable over Ning '861 in view of Davenport '326, Mentzel '336 and Hayes, U.S. Patent No. 4 492 240. New Claim 18, which incorporates the subject matter of cancelled Claim 16, recites a multiple length filter rod comprising a plurality of filters, each filter having the features of the filter recited in Claim 1. Therefore, Claim 18 is believed allowable over

Ning, Davenport and Mentzel for the same reasons as presented above relative to Claim 1. Since Hayes does not cure the deficiencies of the Ning, Davenport and Mentzel combination, Claim 18 is believed allowable. New Claim 24 depends from what is believed to be an allowable Claim 18, is believed allowable therewith, and includes additional features which further distinguish over the applied references.

For the above reasons reconsideration of the application and allowance thereof are respectfully requested. Further and favorable reconsideration is respectfully requested.

Respectfully submitted,



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Encl: Formal drawing Figure 2
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SMOKERS FILTER

ABSTRACT OF THE DISCLOSURE

A tobacco smoke filter which has a tar retention of at most 50% and ~~comprises~~has a relatively high draw resistance downstream filtering plug of at most 50% tar retention, a relatively low draw resistance upstream filter plug of at most 22% tar retention spaced longitudinally upstream therefrom, and a filter wrapper engaging around and joining the spaced plugs to define a cavity therebetween.